Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Title V
AIR QUALITY PERMIT
Issued under 401 KAR 52:020

Permittee Name:	Corning Incorporated
Mailing Address:	680 East Office Street, Harrodsburg, Kentucky 40330
Source Name:	Corning Incorporated
Mailing Address:	680 East Office Street, Harrodsburg, Kentucky 40330
Source Location:	Same as mailing address
Permit Number:	V-03-052
AI Number:	3143
Review Type:	Title V, Operating
Source ID #:	21-167-00004
Activity Number:	APE20030001
Regional Office:	Frankfort Regional Office 643 Teton Trail Frankfort, KY 40601-1758 (502) 564-3358
County:	Mercer
Complete Date:	October 22, 2004
Issuance Date:	October 14, 2005
Expiration Date:	October 14, 2010

E-Signed by Diana Andrews
VERIFY authenticity with ApproveIt

John S. Lyons, Director
Division for Air Quality

Revised 8/3/05

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and received a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 01 Existing Operations for Raw Materials Handling

Description:

Machine Point	Description	Commenced operation	Operating rate
01	(02) Railcar Raw Material Unloading equipped with building enclosure, two (2) sand silos, one (1) boric acid silo, one (1) alumina silo, one (1) CaCO3 silo, and one (1) rail shed vacuum system (total 5 silos)	1966	25 tons/hour
02	(08) Weigh Station 1 equipped with baghouse	1969	15 tons/hour
03	(09) Weigh Station 2 equipped with baghouse	1970	15 tons/hour

APPLICABLE REGULATIONS:
401 KAR 61:020, Existing process operations, applicable to an emission unit commenced before July 2, 1975

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to 401 KAR 61:020, Section 3(2), particulate matter emissions into the open air from any machine point shall not exceed $4.10P^{0.67}$ pounds per hour based on a three-hour average, where P is the average processing rate calculated weekly in tons per hour.

b) Pursuant to 401 KAR 61:020, Section 3(1), no person shall cause, suffer, allow or permit continuous emissions into the open air from a control device or stack associated with any affected facility which is equal to or greater than forty (40) percent opacity.

The permittee may assure compliance with the particulate mass and opacity standard by assuring proper operation of the baghouse. The proper operation of the baghouse is ensured, by complying with the visual observation requirements as described in the monitoring requirements subsection.

3. Testing Requirements:
None.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for making any necessary repairs.

b) The permittee shall monitor the amount of raw material processed and the hours of operation of each machine point on a weekly basis.

5. Recordkeeping Requirements:

The permittee shall maintain the record of visible observations, any Method 9 readings, raw material processed and hours of operation of the raw material handling at each machine point on a weekly basis.

6. Reporting Requirements:

See Conditions 5, 6, 7, and 8 in Section F.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouses used to control emissions shall be operated to maintain compliance with applicable requirements in accordance with manufacturer's specifications and/or standard operating practices.

b) Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the baghouses shall be maintained.

c) See Section E.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 02 New Operations for Raw Materials Handling

Description:

Machine Point	Description	Commenced operation	Operating rate
01	Raw Material Separator equipped with baghouse	1992	7.5 tons/hour
02	Day Bins System 1 equipped with baghouse	1993	10 tons/hour
03	Day Bins System 2 equipped with baghouse	1993	10 tons/hour
04	Mixer 1 equipped with baghouse	1992	15 tons/hour
05	Mixer 2 equipped with baghouse	1982	15 tons/hour
06	Primary Cullet Crusher equipped with baghouse	1983	25 tons/hour
07	Secondary Cullet Crusher equipped with baghouse	1983	25 tons/hour
08	Loading into ADP Tanks equipped with building enclosure	1989	5.32 tons/hour

APPLICABLE REGULATIONS:
401 KAR 59:010, New Process Operations, applicable to an emission unit commenced on or after July 2, 1975.

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air from any machine point shall not exceed $3.59P^{0.62}$ pounds per hour based on a three-hour average, where P is the average processing rate calculated weekly in tons per hour.

b) Pursuant to 401 KAR 59:010, Section 3(2), no person shall cause, suffer, allow or permit continuous emissions into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

The permittee may assure compliance with the particulate matter and opacity standard by assuring proper operation of the baghouse. The proper operation of the baghouse is ensured by complying with the visual observation requirements, as described in the monitoring requirements subsection.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

None.

4. Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for making any necessary repairs.

b) The permittee shall monitor the amount of raw material processed and the hours of operation of each machine point on a weekly basis.

5. Recordkeeping Requirements:

The permittee shall maintain the record of visible observations, any Method 9 readings, raw material processed and hours of operation of the raw material handling at each machine point on a weekly basis.

6. Reporting Requirements:

See Conditions 5, 6, 7, and 8 in Section F.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouses used to control emissions shall be operated to maintain compliance with applicable requirements in accordance with manufacturer's specifications and/or standard operating practices.

b) Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the baghouses shall be maintained.

c) See Section E.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 03 Vacuum Systems

Description:

Machine Point	Description	Commenced operation	Operating rate
01	Central Vacuum System equipped with baghouse	1981	7.5 ton/hour
02	Cullet Crushing Vacuum System equipped with baghouse	1983	7.5 ton/hour
03	Melting Vacuum System equipped with baghouse	1983	5.0 ton/hour

APPLICABLE REGULATIONS:
401 KAR 59:010, New Process Operations, applicable to an emission unit commenced on or after July 2, 1975.

1. Operating Limitations:
Machine Point 01, 02 and 03 each has taken a limit of 500 tpy as the maximum annual output.

2. Emission Limitations:

a) Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air from any machine point shall not exceed $3.59P^{0.62}$ pounds per hour based on a three-hour average, where P is the average raw material processing rate calculated weekly in tons per hour.

b) Pursuant to 401 KAR 59:010, Section 3(1), no person shall cause, suffer, allow or permit continuous emissions into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity

The permittee may assure compliance with the particulate mass and opacity standard by assuring proper operation of the baghouse. The proper operation of the baghouse is ensured by complying with the visual observation requirements, as described in the monitoring requirements subsection.

3. Testing Requirements:
None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for making any necessary repairs.

b) The permittee shall monitor the amount of material processed and the hours of operation of each machine point on a weekly basis.

5. Recordkeeping Requirements:

The permittee shall maintain the record of visible observations, any Method 9 readings, raw material processed and hours of operation of the raw material handling at each machine point on a weekly basis.

6. Reporting Requirements:

See Conditions 5, 6, 7, and 8 in Section F.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouses used to control emissions shall be operated to maintain compliance with applicable requirements in accordance with manufacturer's specifications and/or standard operating practices.

b) Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the baghouses shall be maintained.

c) See Section E.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 04 Glass Melting Tank (T133)

Description:

Experimental Glass Melting Furnace

Rated Capacity:	0.5 mmBtu/hour
Fuel:	Natural gas/propane fired
Construction commenced:	January 1986
Control equipment:	Baghouse
Processing rate:	0.025 ton/hour arsenic glass pull (F/G glass)
Alternate Processing rate:	0.050 ton/hour arsenic free glass pull (G glass)

APPLICABLE REGULATIONS:

401 KAR 59:010, New Process Operations, applicable to an emission unit commenced on or after July 2, 1975.

401 KAR 57:002, Section 3 (l), incorporating by reference the federal 40 CFR 61, Subpart N, National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants.

1. Operating Limitations:

The elemental arsenic addition to the glass-melting furnace shall be less than 1.0 Mg in any consecutive twelve months period to qualify for demonstrating compliance with arsenic emission limitations in 40 CFR 61.164(c).

2. Emission Limitations:

a) Pursuant to 40 CFR 61.162(b)(1), uncontrolled total arsenic emission from the glass-melting furnace shall be less than 0.4 Mg per year, while operating under scenario 2 - F/G Glass, while manufacturing F/G glass (see Section B (8), Alternate Operating Scenario 2)**.**

b) Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air shall not exceed $3.59P^{0.62}$ pounds per hour based on a three-hour average, where P is the average raw material processing rate calculated weekly in tons per hour.

c) Pursuant to 401 KAR 59:010, Section 3(1)(a), any continuous emission into the open air shall not equal or exceed twenty (20) percent opacity based on a six-minute average.

The permittee may assure compliance with the particulate mass and opacity standard by assuring proper operation of the baghouse. The proper operation of the baghouse is ensured by complying with the visual observation requirements, as described in the monitoring requirements subsection.

3. Testing Requirements:

See Section D

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for making any necessary repairs.

b) The permittee shall monitor the amount of raw material used and the hours of operation of the melting furnace on a weekly basis.

c) The permittee shall monitor all relevant information to estimate arsenic emission as described in 40 CFR 61.164(c).

5. Recordkeeping Requirements:

a) The permittee shall maintain the record of visible observations, any Method 9 readings, raw material processed and hours of operation of the raw material handling at each machine point on a weekly basis.

b) Pursuant to 40 CFR 61.165(c), the permittee shall determine and record at the end of every six months the uncontrolled arsenic emissions rate for the preceding and forthcoming twelve months period. Each six months period will begin on January 1 and July 1 of each year.

c) The permittee shall estimate the elemental arsenic addition to the glass-melting furnace on a monthly basis.

d) Pursuant to 40 CFR 61.165(a)(2), the permittee shall maintain records of emission test data and all calculations used to produce the required reports of emissions estimate to demonstrate compliance with arsenic emission standard.

e) Pursuant to 401 KAR 59:005, Section 2, the permittee shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of an existing facility or any malfunction of control equipment.

6. Reporting Requirements:

(a) Pursuant to 40 CFR 61.165(d)(4), the permittee shall submit to the division a written report of uncontrolled arsenic emission rates determined pursuant to 40 CFR 61.165(c), if:

i) The emission rate for the preceding 12 months period (or preceding 6-months period for the first 6-months determination) exceeded the applicable limit.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii) The emission rate for the forthcoming 12-month period will exceed the applicable limit. In that case, the permittee shall also notify the division of the anticipated date of the emission test to demonstrate compliance with the applicable limit pursuant to 40 CFR 61.162(b)(2).

b) Pursuant to 40 CFR 61.165(d)(5), the report shall be postmarked by the tenth day following the end of the 6-month reporting period.

c) Pursuant to 401 59:005, Section 3(d), a notification of any physical or operational change to Melting Tank 133 which may increase the emission rate of any air pollutant to which a standard applies shall be postmarked sixty (60) days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, if any, productive capacity of the melting tank before and after the change, and expected completion date of the change.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouse shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Whenever the interconnecting duct between baghouse C(14) and C(23) is in operation the permittee shall maintain the records indicating which baghouse was used (C(14) or C(23)) and for how long.

c) Records regarding the maintenance and operation of the control equipment shall be maintained.

d) See Section E for further requirements.

8. Alternate Operating Scenarios:

The alternate operating scenarios set forth below have been approved by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, Condition (a) 15, shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

SCENARIO 1: G Glass
12 (04) Glass Melting Tank (T133)

This operating scenario corresponds to total glass production that produces no arsenic emissions.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

SCENARIO 2: F/G Glass
12 (04) Glass Melting Tank (T133)

This operating scenario corresponds to total glass production that produces arsenic emissions < 0.4 mg/yr or 0.44 ton/yr.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 05 (28) Glass Melting Tank (T138)

Description:

Glass melting furnace

Rated Capacity:	6 mmBtu/hour
Fuel:	Natural gas/propane fired
Construction commenced:	July 1993
Control equipment:	Baghouse, spray cooler and excess air burner
Processing rate:	0.5 ton/hour glass pull

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 3(kk), incorporating by reference 40 CFR 60, Subpart CC, Standards of Performance for Glass Manufacturing Plants.

401 KAR 57:002, Section 3 (l), incorporating by reference 40 CFR 61, Subpart N, National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants.

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to 40 CFR 61.162(b)(2), uncontrolled total arsenic emission from the glass-melting furnace shall be conveyed to a control device and reduced by 85 percent.

b) Pursuant to 40 CFR 60.292, emissions of particulate matter shall not exceed 0.5 g/kg (1.0 lb/ton) of glass produced based on a three hours average.

3. Testing Requirements:

See Section D

4. Monitoring Requirements:

a) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of opacity of emissions discharged into the atmosphere from the control device.

b) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of temperature of the gas entering the control device.

c) The permittee shall meet the requirements mentioned in 40 CFR Part 60, §60.13(d) and §60.13(f) for operating the continuous monitoring devices.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d) Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR Part 60, §60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

e) Pursuant to 40 CFR 61.163(g), the permittee shall:

i) Reduce all opacity data to 6-minute averages. Six-minute averages shall be calculated from 24 or more data points equally spaced over each 6-minute period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages calculated under this paragraph.

ii) Calculate 15-minute averages of the temperature of the gas entering the control device for each 15-minute operating periods.

f) The permittee shall monitor the amount of glass produced on a monthly basis.

5. Recordkeeping Requirements:

a) Pursuant to 40 CFR 61.165(a), the permittee shall maintain records of the following information:

1. All measurements, including continuous monitoring for measurement of opacity, and temperature of gas entering a control device.
2. All emission test data.
3. All continuous monitoring system performance evaluations, including calibration checks and adjustments.
4. The occurrence and duration of all startups, shutdown, and malfunctions of the furnace.
5. All malfunctions of the air pollution control system.
6. All periods during which any continuous monitoring system or monitoring device is inoperative.
7. All records of maintenance and repairs for each air pollution control system, continuous monitoring system, or monitoring device.

b) The permittee shall maintain the record of glass production on a monthly basis.

6. Reporting Requirements:

a) Pursuant to 40 CFR 61.165(f), the permittee shall submit a written report to the division every six months if excess opacity occurs during the preceding 6 months period. Each six month reporting period will begin on January 1 and July 1 of each year. For the purposes of this report, an occurrence of excess opacity is any 6-minute period during which the average opacity, as measured by the continuous monitoring system, exceeds the opacity level determined under 40 CFR 61.163(c)(3) or 61.163(d).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) The report shall be postmarked by the thirtieth day following the end of the 6-month period and including the following information:

1. The magnitude of the excess opacity, any conversion factor(s) used, and the date and time of commencement and completion of such occurrence of excess opacity.

2. Specific identification of each occurrence of excess opacity that occurs during startups, shutdowns, and malfunctions of the source.

3. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouse and the spray cooler shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Whenever the interconnecting ducts between baghouse C (14) and C (23) is in operation the permittee shall maintain the records indicating which baghouse was used (C (14) or C (23)) and for how long.

c) Records regarding the maintenance and operation of the control equipment shall be maintained.

d) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 06 (29) Glass Melting Tank (T139)

Description:

Glass melting furnace

Rated Capacity:	6.5 mmBtu/hour
Fuel:	Natural gas/propane fired
Construction commenced:	December 1989
Control equipment:	Baghouse, spray cooler and excess air burner
Processing rate:	0.5 ton/hour glass pull

APPLICABLE REGULATIONS:
401 KAR 60:005, Section 3(kk), incorporating by reference 40 CFR 60, Subpart CC, Standards of Performance for Glass Manufacturing Plants.

401 KAR 57:002, Section 3 (l), incorporating by reference 40 CFR 61, Subpart N, National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants.

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to 40 CFR 61.162(b)(2), uncontrolled total arsenic emission from the glass-melting furnace shall be conveyed to a control device and reduced by 85 percent.

b) Pursuant to 40 CFR 60.292, emissions of particulate matter shall not exceed 0.5 g/kg (1.0 lb/ton) of glass produced based on a three hours average.

3. Testing Requirements:
See Section D

4. Monitoring Requirements:

a) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of opacity of emissions discharged into the atmosphere from the control device.

b) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of temperature of the gas entering the control device.

c) The permittee shall meet the requirements mentioned in 40 CFR Part 60, §60.13(d) and §60.13(f) for operating the continuous monitoring devices.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d) Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR Part 60, §60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

e) Pursuant to 40 CFR 61.163(g), the permittee shall:

i) Reduce all opacity data to 6-minute averages. Six-minute averages shall be calculated from 24 or more data points equally spaced over each 6-minute period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages calculated under this paragraph.

ii) Calculate 15-minute averages of the temperature of the gas entering the control device for each 15-minute operating periods.

f) The permittee shall monitor the amount of glass produced on a monthly basis.

5. Recordkeeping Requirements:

a) Pursuant to 40 CFR 61.165(a), the permittee shall maintain records of the following information:

1. All measurements, including continuous monitoring for measurement of opacity, and temperature of gas entering a control device.
2. All emission test data.
3. All continuous monitoring system performance evaluations, including calibration checks and adjustments.
4. The occurrence and duration of all startups, shutdown, and malfunctions of the furnace.
5. All malfunctions of the air pollution control system.
6. All periods during which any continuous monitoring system or monitoring device inoperative.
7. All records of maintenance and repairs for each air pollution control system, continuous monitoring system, or monitoring device.

b) The permittee shall maintain the record of glass production on a monthly basis.

6. Reporting Requirements:

a) Pursuant to 40 CFR 61.165(f), the permittee shall submit a written report to the division every six months if excess opacity occurs during the preceding 6 months period. Each six month reporting period will begin on January 1 and July 1 of each year. For the purposes of this report, an occurrence of excess opacity is any 6-minute period during which the average opacity, as measured by the continuous monitoring system, exceeds the opacity level determined under 40 CFR 61.163(c)(3) or 61.163(d).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) The report shall be postmarked by the thirtieth day following the end of the 6-month period and including the following information:

1. The magnitude of the excess opacity, any conversion factor(s) used, and the date and time of commencement and completion of such occurrence of excess opacity.

2. Specific identification of each occurrence of excess opacity that occurs during startups, shutdowns, and malfunctions of the source.

3. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouse and the spray cooler shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Whenever the interconnecting duct between baghouse C (14) and C (23) is in operation the permittee shall maintain the records indicating which baghouse was used (C (14) or C (23)) and for how long.

c) Records regarding the maintenance and operation of the control equipment shall be maintained.

d) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 07 (30) Glass Melting Tank (T1310)

Description:

Glass Melting Furnace

Rated Capacity:	5 mmBtu/hour
Fuel:	Natural gas/propane fired
Construction commenced:	May 1989
Control equipment:	Baghouse, spray cooler and excess air burner
Processing rate:	0.5 ton/hour glass pull

APPLICABLE REGULATIONS:
401 KAR 60:005, Section 3(kk), incorporating by reference 40 CFR 60, Subpart CC, Standards of Performance for Glass Manufacturing Plants.

401 KAR 57:002, Section 3 (l), incorporating by reference 40 CFR 61, Subpart N, National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants.

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to 40 CFR 61.162(b)(2), uncontrolled total arsenic emission from the glass-melting furnace shall be conveyed to a control device and reduced by 85 percent.

b) Pursuant to 40 CFR 60.292, emissions of particulate matter shall not exceed 0.5 g/kg (1.0 lb/ton) of glass produced based on a three hours average.

3. Testing Requirements:
See Section D

4. Monitoring Requirements:

a) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of opacity of emissions discharged into the atmosphere from the control device.

b) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of temperature of the gas entering the control device.

c) The permittee shall meet the requirements mentioned in 40 CFR Part 60, §60.13(d) and §60.13(f) for operating the continuous monitoring devices.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d) Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR Part 60, §60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

e) Pursuant to 40 CFR 61.163(g), the permittee shall:

i) Reduce all opacity data to 6-minute averages. Six-minute averages shall be calculated from 24 or more data points equally spaced over each 6-minute period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages calculated under this paragraph.

ii) Calculate 15-minute averages of the temperature of the gas entering the control device for each 15-minute operating periods.

f) The permittee shall monitor the amount of glass produced on a monthly basis.

5. Recordkeeping Requirements:

a) Pursuant to 40 CFR 61.165(a), the permittee shall maintain records of the following information:

1. All measurements, including continuous monitoring for measurement of opacity, and temperature of gas entering a control device.
2. All emission test data.
3. All continuous monitoring system performance evaluations, including calibration checks and adjustments.
4. The occurrence and duration of all startups, shutdown, and malfunctions of the furnace.
5. All malfunctions of the air pollution control system.
6. All periods during which any continuous monitoring system or monitoring device is inoperative.
7. All records of maintenance and repairs for each air pollution control system, continuous monitoring system, or monitoring device.

b) The permittee shall maintain the record of glass production on a monthly basis.

6. Reporting Requirements:

a) Pursuant to 40 CFR 61.165(f), the permittee shall submit a written report to the division every six months if excess opacity occurs during the preceding 6 months period. Each six month reporting period will begin on January 1 and July 1 of each year. For the purposes of this report, an occurrence of excess opacity is any 6-minute period during which the average opacity, as measured by the continuous monitoring system, exceeds the opacity level determined under 40 CFR 61.163(c)(3) or 61.163(d).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) The report shall be postmarked by the thirtieth day following the end of the 6-month period and including the following information:

1. The magnitude of the excess opacity, any conversion factor(s) used, and the date and time of commencement and completion of such occurrence of excess opacity.

2. Specific identification of each occurrence of excess opacity that occurs during startups, shutdowns, and malfunctions of the source.

3. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouse and the spray cooler shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Whenever the interconnecting duct between baghouse C (14) and C (23) is in operation the permittee shall maintain the records indicating which baghouse was used (C (14) or C (23)) and for how long.

c) Records regarding the maintenance and operation of the control equipment shall be maintained.

d) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 08 (31) Glass Melting Tank (T1311)

Description:

Glass melting furnace

Rated Capacity:	5 mmBtu/hour
Fuel:	Natural gas/propane fired
Construction commenced:	June 1995 (modified)
Control equipment:	Baghouse, spray cooler and excess air burner
Processing rate:	0.5 ton/hour glass pull

APPLICABLE REGULATIONS:
401 KAR 60:005, Section 3(kk) incorporating by reference 40 CFR 60, Subpart CC, Standards of Performance for Glass Manufacturing Plants.

401 KAR 57:002, Section 3 (l), incorporating by reference 40 CFR 61, Subpart N, National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants.

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to 40 CFR 61.162(b)(2), uncontrolled total arsenic emission from the glass-melting furnace shall be conveyed to a control device and reduced by 85 percent.

b) Pursuant to 40 CFR 60.292, emissions of particulate matter shall not exceed 0.5 g/kg (1.0 lb/ton) of glass produced based on a three hours average.

3. Testing Requirements:
See Section D

4. Monitoring Requirements:

a) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of opacity of emissions discharged into the atmosphere from the control device.

b) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of temperature of the gas entering the control device.

c) The permittee shall meet the requirements mentioned in 40 CFR Part 60, §60.13(d) and §60.13(f) for operating the continuous monitoring devices.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d) Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR Part 60, §60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

e) Pursuant to 40 CFR 61.163(g), the permittee shall:

i) Reduce all opacity data to 6-minute averages. Six-minute averages shall be calculated from 24 or more data points equally spaced over each 6-minute period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages calculated under this paragraph.

ii) Calculate 15-minute averages of the temperature of the gas entering the control device for each 15-minute operating periods.

f) The permittee shall monitor the amount of glass produced on a monthly basis.

5. Recordkeeping Requirements:

a) Pursuant to 40 CFR 61.165(a), the permittee shall maintain records of the following information:

1. All measurements, including continuous monitoring for measurement of opacity, and temperature of gas entering a control device.
2. All emission test data.
3. All continuous monitoring system performance evaluations, including calibration checks and adjustments.
4. The occurrence and duration of all startups, shutdown, and malfunctions of the furnace.
5. All malfunctions of the air pollution control system.
6. All periods during which any continuous monitoring system or monitoring device is inoperative.
7. All records of maintenance and repairs for each air pollution control system, continuous monitoring system, or monitoring device.

b) The permittee shall maintain the record of glass production on a monthly basis.

6. Reporting Requirements:

a) Pursuant to 40 CFR 61.165(f), the permittee shall submit a written report to the division every six months if excess opacity occurs during the preceding 6 months period. Each six months reporting period will begin on January 1 and July 1 of each year. For the purposes of this report, an occurrence of excess opacity is any 6-minute period during which the average opacity, as measured by the continuous monitoring system, exceeds the opacity level determined under 40 CFR 61.163(c)(3) or 61.163(d).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) The report shall be postmarked by the thirtieth day following the end of the 6-month period and including the following information:

1. The magnitude of the excess opacity, any conversion factor(s) used, and the date and time of commencement and completion of such occurrence of excess opacity.

2. Specific identification of each occurrence of excess opacity that occurs during startups, shutdowns, and malfunctions of the source.

3. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouse and the spray cooler shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Whenever the interconnecting duct between baghouse C (14) and C (23) is in operation the permittee shall maintain the records indicating which baghouse was used (C (14) or C (23)) and for how long.

c) Records regarding the maintenance and operation of the control equipment shall be maintained.

d) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 09 (42) Indirect Heat Exchanger

Description:
Natural gas horizontally-opposed fired
Maximum continuous rating: 10.5 mmBtu/hour
Secondary fuel: Propane or #2 fuel oil.
Construction Commenced: January 1987

Applicable Regulations:
401 KAR 59:015, New Indirect Heat Exchangers, applicable to an emissions unit with a capacity of less than 250 mmBtu/hour, which commenced on or after April 9, 1972.

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to 401 KAR 59:015, Section 4(1)(c), particulate emissions shall not exceed 0.40 lbs/mmBtu. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using fuel oil usage rates, fuel analysis, and emission factor information:

PM Emissions (lb/mmBtu) from combustion of fuel oil = (U.S. EPA approved or AP-42 emissions factor: 2.0 lbs / 10^3 gallons) / (heating value from fuel analysis in mmBtu/10^3 gallons).

b) Pursuant to 401 KAR 59:015, Section 5(1), sulfur dioxide emissions shall not exceed 1.68 lb/mmBtu. While burning fuel oil, compliance with the allowable sulfur dioxide standard may be demonstrated by calculating sulfur dioxide emissions using fuel oil usage rates, fuel analysis, and emission factor information:

SO_2 Emissions (lb/mmBtu) from combustion of fuel oil= (U.S. EPA approved or AP-42 emission factor: 142S lbs / 10^3 gallons) / (heating value from fuel analysis in mmBtu / 10^3 gallons).

While burning natural gas or propane, this unit is considered to be in compliance with PM, SO_2 and opacity standard.

c) Pursuant to 401 KAR 59:015, Section 4(2), emissions shall not exceed 20% opacity based on a six minute average, except that a maximum of 40% opacity based on a six minute average, shall be permissible for not more than 6 consecutive minutes in any consecutive 60 minutes during cleaning the fire-box or blowing soot.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:
None

4. Specific Monitoring Requirements:

a) The permittee shall monitor the heat content and sulfur content of the fuel oil on each shipment received. The permittee may use fuel supplier certification to meet this requirement.

b) The permittee shall monitor the amount of fuel oil burned on a monthly basis.

5. Specific Recordkeeping Requirements:

a) Records of amount of fuel oil burned each month shall be maintained.

b) Records of the sulfur and heat content of fuel oil burned shall be maintained.

6. Specific Reporting Requirements:
See Conditions 5, 6, 7, and 8 in Section F.

7. Specific Control Equipment Operating Conditions:
None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 10 (67) Glass Melting Tank (T135)

Description:

Glass melting furnace

Rated Capacity:	21 mmBtu/hour
Fuel:	Natural gas/propane fired
Construction commenced:	December 2000
Control equipment:	Baghouse, spray cooler and excess air burner
Processing rate:	1.37 ton/hour glass pull

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 3(kk), incorporating by reference 40 CFR 60, Subpart CC, Standards of Performance for Glass Manufacturing Plants.

401 KAR 57:002, Section 3 (l), incorporating by reference 40 CFR 61, Subpart N, National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants.

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to 40 CFR 61.162(b)(2), uncontrolled total arsenic emission from the glass melting furnace shall be conveyed to a control device and reduced by 85 percent, while manufacturing F Glass (see Section B (8), Alternate Operating Scenario 1).

b) Pursuant to 40 CFR 61.162(b)(1), uncontrolled total arsenic emissions from the glass melting furnace shall be less than 0.4 Mg per year, while operating under scenario 2 - F/G Glass, while manufacturing F/G glass (see Section B (8), Alternate Operating Scenario 2)**.**

c) Pursuant to 40 CFR 60.292, emissions of particulate matter shall not exceed 0.5 g/kg (1.0 lb/ton) of glass produced based on a three hours average.

3. Testing Requirements:

See Section D

4. Monitoring Requirements:

a) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of opacity of emissions discharged into the atmosphere from the control device.

b) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of temperature of the gas entering the control device.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c) The permittee shall meet the requirements mentioned in 40 CFR Part 60, §60.13(d) and §60.13(f) for operating the continuous monitoring devices.

d) Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR Part 60, §60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

e) Pursuant to 40 CFR 61.163(g), the permittee shall:

i) Reduce all opacity data to 6-minute averages. Six-minute averages shall be calculated from 24 or more data points equally spaced over each 6-minute period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages calculated under this paragraph.

ii) Calculate 15-minute averages of the temperature of the gas entering the control device for each 15-minute operating periods.

f) The permittee shall monitor the amount of glass produced on a monthly basis.

g) All reporting requirements pursuant to 40 CFR 61.160 through 61.165, Subpart N.

5. <u>Recordkeeping Requirements</u>:

a) Pursuant to 40 CFR 61.165(a), the permittee shall maintain records of the following information:

1. All measurements, including continuous monitoring for measurement of opacity, and temperature of gas entering a control device.
2. All emission test data.
3. All continuous monitoring system performance evaluations, including calibration checks and adjustments.
4. The occurrence and duration of all startups, shutdown, and malfunctions of the furnace.
5. All malfunctions of the air pollution control system.
6. All periods during which any continuous monitoring system or monitoring device is inoperative.
7. All records of maintenance and repairs for each air pollution control system, continuous monitoring system, or monitoring device.
8. The permittee shall maintain the record of glass production on a monthly basis.
9. The operating scenario the unit is operating under.
10. All record keeping requirements pursuant to 40 CFR 61.160 through 61.165, Subpart N.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Reporting Requirements:

a) Pursuant to 40 CFR 61.165(f), the permittee shall submit a written report to the division every six months if excess opacity occurs during the preceding 6 months period. Each six months reporting period will begin on January 1 and July 1 of each year. For the purposes of this report, an occurrence of excess opacity is any 6-minute period during which the average opacity, as measured by the continuous monitoring system, exceeds the opacity level determined under 40 CFR 61.163(c)(3) or 61.163(d).

b) The report shall be postmarked by the thirtieth day following the end of the 6-month period and including the following information:

1. The magnitude of the excess opacity, any conversion factor(s) used, and the date and time of commencement and completion of such occurrence of excess opacity.

2. Specific identification of each occurrence of excess opacity that occurs during startups, shutdowns, and malfunctions of the source.

3. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

c) The permittee shall maintain a report of the yearly NOx emissions on a twelve (12) month rolling total. The emissions shall be calculated on a monthly basis, based on a stack test emission factor and glass production rate.

d) All reporting requirements pursuant to 40 CFR 61.160 through 61.165, Subpart N.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouse and the spray cooler shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications
and/or standard operating practices.

b) Whenever the interconnecting duct between baghouse C(14) and C(23) is in operation the permittee shall maintain the records indicating which baghouse was used (C(14) or C(23)) and for how long.

c) Records regarding the maintenance and operation of the control equipment shall be maintained.

d) See Section E for further requirements.

8. Alternate Operating Scenarios:

The alternate operating scenarios set forth below, have been approved by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, Condition (a) 15, shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

SCENARIO 1: F Glass
10 (67) Glass Melting Tank (T135)

This operating scenario corresponds to total glass production that produces arsenic emissions > 0.4 Mg/yr.

SCENARIO 2: F/G Glass
10 (67) Glass Melting Tank (T135)

This operating scenario corresponds to total glass production that produces arsenic emissions < 0.4 Mg/yr.

SCENARIO 3: G Glass
10 (67) Glass Melting Tank (T135)

This operating scenario corresponds to production of arsenic free glass.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 11 (68) Glass Melting Tank (T136)

Description:

Glass melting furnace

Rated Capacity:	10.5mmBtu/hour
Fuel:	Natural gas/propane fired
Construction commenced:	April 2000
Control equipment:	Baghouse, spray cooler and excess air burner
Processing rate:	0.684 ton/hour glass pull

APPLICABLE REGULATIONS:
401 KAR 60:005, Section 3(kk), incorporating by reference 40 CFR 60, Subpart CC, Standards of Performance for Glass Manufacturing Plants.

401 KAR 57:002, Section 3 (l), incorporating by reference 40 CFR 61, Subpart N, National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants.

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to 40 CFR 61.162(b)(2), uncontrolled total arsenic emission from the glass melting furnace shall be conveyed to a control device and reduced by 85 percent, while manufacturing F Glass (see Section B (8), Alternate Operating Scenario 1).

b) Pursuant to 40 CFR 61.162(b)(1), uncontrolled total arsenic emissions from the glass melting furnace shall be less than 0.4 Mg per year, while operating under scenario 2 - F/G Glass, while manufacturing F/G glass (see Section B (8), Alternate Operating Scenario 2).

c) Pursuant to 40 CFR 60.292, emissions of particulate matter shall not exceed 0.5 g/kg (1.0 lb/ton) of glass produced based on a three hours average.

3. Testing Requirements:
See Section D

4. Monitoring Requirements:

a) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of opacity of emissions discharged into the atmosphere from the control device.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of temperature of the gas entering the control device.

c) The permittee shall meet the requirements mentioned in 40 CFR Part 60, §60.13(d) and §60.13(f) for operating the continuous monitoring devices.

d) Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR Part 60, §60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

e) Pursuant to 40 CFR 61.163(g), the permittee shall:

i) Reduce all opacity data to 6-minute averages. Six-minute averages shall be calculated from 24 or more data points equally spaced over each 6-minute period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages calculated under this paragraph.

ii) Calculate 15-minute averages of the temperature of the gas entering the control device for each 15-minute operating period.

f) The permittee shall monitor the amount of glass produced on a monthly basis.

g) All reporting requirements pursuant to 40 CFR 61.160 through 61.165, Subpart N.

5. <u>Record keeping Requirements</u>:

a) Pursuant to 40 CFR 61.165(a), the permittee shall maintain records of the following information:

1. All measurements, including continuous monitoring for measurement of opacity, and temperature of gas entering a control device.
2. All emission test data.
3. All continuous monitoring system performance evaluations, including calibration checks and adjustments.
4. The occurrence and duration of all startups, shutdown, and malfunctions of the furnace.
5. All malfunctions of the air pollution control system.
6. All periods during which any continuous monitoring system or monitoring device is inoperative.
7. All records of maintenance and repairs for each air pollution control system, continuous monitoring system, or monitoring device.
8. The permittee shall maintain the record of glass production on a monthly basis.
9. The operating scenario the unit is operating under.
10. All record keeping requirements pursuant to 40 CFR 61.160 through 61.165, Subpart N.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Reporting Requirements:

a) Pursuant to 40 CFR 61.165(f), the permittee shall submit a written report to the division every six months if excess opacity occurs during the preceding 6 months period. Each six months reporting period will begin on January 1 and July 1 of each year. For the purposes of this report, an occurrence of excess opacity is any 6-minute period during which the average opacity, as measured by the continuous monitoring system, exceeds the opacity level determined under 40 CFR 61.163(c)(3) or 61.163(d).

b) The report shall be postmarked by the thirtieth day following the end of the 6-month period and including the following information:

1. The magnitude of the excess opacity, any conversion factor(s) used, and the date and time of commencement and completion of such occurrence of excess opacity.

2. Specific identification of each occurrence of excess opacity that occurs during startups, shutdowns, and malfunctions of the source.

3. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

c) The permittee shall maintain a report of the yearly NOx emissions on a twelve (12) month rolling total. The emissions shall be calculated on a monthly basis, based on a stack test emission factor and glass production rate.

d) All reporting requirements pursuant to 40 CFR 61.160 through 61.165, Subpart N.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouse and the spray cooler shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Whenever the interconnecting duct between baghouse C (14) and C(23) is in operation the permittee shall maintain the records indicating which baghouse was used (C(14) or C(23)) and for how long.

c) Records regarding the maintenance and operation of the control equipment shall be maintained.

d) See Section E for further requirements.

8. Alternate Operating Scenarios:

The alternate operating scenarios set forth below have been approved by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, Condition (a) 15, shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

SCENARIO 1: F Glass
11 (68) Glass Melting Tank (T136)

This operating scenario corresponds to total glass production that produces arsenic emissions > 0.4 Mg/yr.

SCENARIO 2: F/G Glass
11 (68) Glass Melting Tank (T136)

This operating scenario corresponds to total glass production that produces arsenic emissions < 0.4 Mg/yr.

SCENARIO 3: G Glass
11 (68) Glass Melting Tank (T136)

This operating scenario corresponds to production of arsenic free glass.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 12 (69) Glass Melting Tank (T137)

Description:

Glass melting furnace

Rated Capacity:	10.5mmBtu/hour
Fuel:	Natural gas/propane fired
Construction commenced:	December 1999
Control equipment:	Baghouse, spray cooler and excess air burner
Processing rate:	0.684 ton/hour glass pull

APPLICABLE REGULATIONS:
401 KAR 60:005, Section 3(kk), incorporating by reference 40 CFR 60, Subpart CC, Standards of Performance for Glass Manufacturing Plants.

401 KAR 57:002, Section 3 (l), incorporating by reference 40 CFR 61, Subpart N, National emission standard for inorganic arsenic emissions from glass manufacturing plants.

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to 40 CFR 61.162(b)(2), uncontrolled total arsenic emission from the glass melting furnace shall be conveyed to a control device and reduced by 85 percent, while manufacturing F Glass (see Section B (8), Alternate Operating Scenario 1).

b) Pursuant to 40 CFR 61.162(b)(1), uncontrolled total arsenic emissions from the glass melting furnace shall be less than 0.4 Mg per year, while operating under scenario 2 - F/G Glass, while manufacturing F/G glass (see Section B (8), Alternate Operating Scenario 2).

c) Pursuant to 40 CFR 60.292, emissions of particulate matter shall not exceed 0.5 g/kg (1.0 lb/ton) of glass produced based on a three hours average.

3. Testing Requirements:
See Section D

4. Monitoring Requirements:

a) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of opacity of emissions discharged into the atmosphere from the control device.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) Pursuant to 40 CFR 61.163(a), the permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of temperature of the gas entering the control device.

c) The permittee shall meet the requirements mentioned in 40 CFR Part 60, §60.13(d) and §60.13(f) for operating the continuous monitoring devices.

d) Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR Part 60, §60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

e) Pursuant to 40 CFR 61.163(g), the permittee shall:

i) Reduce all opacity data to 6-minute averages. Six-minute averages shall be calculated from 24 or more data points equally spaced over each 6-minute period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages calculated under this paragraph.

ii) Calculate 15-minute averages of the temperature of the gas entering the control device for each 15-minute operating periods.

f) The permittee shall monitor the amount of glass produced on a monthly basis.

g) All reporting requirements pursuant to 40 CFR 61.160 through 61.165, Subpart N.

5. <u>Recordkeeping Requirements</u>:

a) Pursuant to 40 CFR 61.165(a), the permittee shall maintain records of the following information:

1. All measurements, including continuous monitoring for measurement of opacity, and temperature of gas entering a control device.
2. All emission test data.
3. All continuous monitoring system performance evaluations, including calibration checks and adjustments.
4. The occurrence and duration of all startups, shutdown, and malfunctions of the furnace.
5. All malfunctions of the air pollution control system.
6. All periods during which any continuous monitoring system or monitoring device is inoperative.
7. All records of maintenance and repairs for each air pollution control system, continuous monitoring system, or monitoring device.
8. The permittee shall maintain the record of glass production on a monthly basis.
9. The operating scenario the unit is operating under.
10. All recordkeeping requirements pursuant to 40 CFR 61.160 through 61.165, Subpart N.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Reporting Requirements:

a) Pursuant to 40 CFR 61.165(f), the permittee shall submit a written report to the division every six months if excess opacity occurs during the preceding 6 month period. Each six months reporting period will begin on January 1 and July 1 of each year. For the purposes of this report, an occurrence of excess opacity is any 6-minute period during which the average opacity, as measured by the continuous monitoring system, exceeds the opacity level determined under 40 CFR 61.163(c)(3) or 61.163(d).

b) The report shall be postmarked by the thirtieth day following the end of the 6-month period and including the following information:

1. The magnitude of the excess opacity, any conversion factor(s) used, and the date and time of commencement and completion of such occurrence of excess opacity.

2. Specific identification of each occurrence of excess opacity that occurs during startups, shutdowns, and malfunctions of the source.

3. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

c) The permittee shall maintain a report of the yearly NOx emissions on a twelve (12) month rolling total. The emissions shall be calculated on a monthly basis, based on a stack test emission factor and glass production rate.

d) All reporting requirements pursuant to 40 CFR 61.160 through 61.165, Subpart N.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouse and the spray cooler shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance and operation of the control equipment shall be maintained.

c) See Section E for further requirements.

8. Alternate Operating Scenarios:

The alternate operating scenarios set forth below have been approved by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, Condition (a) 15, shall extend to each alternate operating scenario set

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

SCENARIO 1: F Glass
12 (69) Glass Melting Tank (T137)

This operating scenario corresponds to total glass production that produces arsenic emissions > 0.4 mg/yr.

SCENARIO 2: F/G Glass
12 (69) Glass Melting Tank (T137)

This operating scenario corresponds to total glass production that produces arsenic emissions < 0.4 mg/yr.

SCENARIO 3: G Glass
12 (69) Glass Melting Tank (T137)

This operating scenario corresponds to production of arsenic free glass.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 13 (03) Four (4) DVMF Units for the Silos and One (1) Bag Chute Filling System

Description

Four (4) Dry vibrating magnetic filter (DVMF) units for the sand, alumina, boric acid, and calcium carbonate silos and one (1) bag chute filling system

Construction commenced: August 2000
Control equipment: (C09) central vacuum system for DVMF for sand and (C26) 3 baghouses for DVMF for alumina, boric acid, and calcium carbonate.
Control equipment efficiency: C09 – 99.9%
C26 – 99.5%

APPLICABLE REGULATIONS:
401 KAR 59:010, New Process Operations, applicable to an emissions unit commenced on or after July 2, 1975.

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air from any machine point shall not exceed $3.59P^{0.62}$ pounds per hour based on a three-hour average, where P is the average processing rate calculated weekly in tons per hour.

b) Pursuant to 401 KAR 59:010, Section 3(1), no person shall cause, suffer, allow or permit continuous emissions into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

The permittee may assure compliance with the particulate mass and opacity standard by assuring proper operation of the baghouse. The proper operation of the baghouse is ensured by complying with the visual observation requirements, as described in the monitoring requirements subsection.

3. Testing Requirements:
The permittee shall determine the opacity of emissions from each stack by EPA Reference Method 9 upon request by the Division.

4. Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for making any necessary repairs.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) The permittee shall monitor the amount of raw material processed and the hours of operation on a weekly basis.

5. Recordkeeping Requirements:

The permittee shall maintain the record of raw material processed and hours of operation on a weekly basis.

6. Reporting Requirements:

See Conditions 5, 6, 7, and 8 in Section F.

7. Specific Control Equipment Operating Conditions:

a) Pursuant to 401 KAR 50:055, Section 2 (5), the baghouses shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance and operation of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 14 (74 and 75) Indirect Heat Exchangers, Two identical units

Description:

Primary fuel:	Natural Gas
Secondary fuel:	#2 Fuel oil
Back up Fuel:	Propane
Operating Rate:	15.21 mmBtu/hour
Last modified:	August 2000

APPLICABLE REGULATIONS:

401 KAR 59:015, New Indirect heat exchangers, applicable to an emissions unit with a capacity of less than 250 mmBtu/hour and commenced on or after April 9, 1972.

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, applicable to a steam generating unit with a capacity of less than 100 mmBtu /hr but greater than 10 mmBtu /hr which commenced on or after June 9, 1989.

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to 401 KAR 59:015, Section 4(1)(c), particulate emissions shall not exceed 0.40 lbs/mmBtu. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using fuel oil usage rates, fuel analysis, and emission factor information:

PM Emissions (lb/mmBtu) from combustion of fuel oil = (U.S. EPA approved or AP-42 emissions factor: 2.0 lbs / 10^3 gallons) / (heating value from fuel analysis in mmBTU/10^3 gallons).

b) Pursuant to 401 KAR 59:015, Section 5(1), sulfur dioxide emissions shall not exceed 1.68 lb/mmBtu. While burning fuel oil, compliance with the allowable sulfur dioxide standard may be demonstrated by calculating sulfur dioxide emissions using fuel oil usage rates, fuel analysis, and emission factor information:

SO_2 Emissions (lb/mmBtu) from combustion of fuel oil= (U.S. EPA approved or AP-42 emission factor: 142S lbs / 10^3 gallons) / (heating value from fuel analysis in mmBtu / 10^3 gallons).

While burning natural gas or propane, this unit is considered to be in compliance with PM, SO_2 and opacity standard.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c) Pursuant to 401 KAR 59:015, Section 4(2), emissions shall not exceed 20% opacity based on a six minute average, except that a maximum of 40% opacity based on a six minute average, shall be permissible for not more than 6 consecutive minutes in any consecutive 60 minutes.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from the stacks on a daily basis while burning fuel oil and maintain a log of the observations. If visible emissions from the stack are seen, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9.

b) The permittee shall monitor the amount of natural gas and fuel oil burned on a monthly basis.

c) The permittee shall obtain a fuel supplier certification of the sulfur content for all fuel oil burned.

5. Specific Recordkeeping Requirements:

a) The permittee shall maintain the record of amount of natural gas fuel oil burned on a monthly basis.

d) The permittee shall maintain the records of the fuel oil supplier certification of the sulfur content for all fuel oil burned (40 CFR 60.48c).

c) The permittee shall maintain the records of all compliance test results.

6. Specific Reporting Requirements:

See Section F

7. Specific Control Equipment Operating Conditions:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 15 Four (4) Diesel Emergency Generators

Description:

15a (76)	Diesel Emergency Generator No. 1 (400 EkW or 587 bhp)
15b (77)	Diesel Emergency Generator No. 2 (600 EkW or 896 bhp)
15c (78)	Diesel Emergency Generator No. 3 (400 EkW or 896 bhp)
15d (79)	Diesel Emergency Generator No. 4 (100 EkW or 166 bhp)

Constructed between 1979-2000

APPLICABLE REGULATIONS:
401 KAR 52:020, Title V Permits

1. Operating Limitations:
The permittee shall limit the hours of operation of each generator to 250 hour per year.

2. Emission Limitations:
None

3. Testing Requirements:
None

4. Specific Monitoring Requirements:

a) The Permittee shall monitor the amount of fuel oil consumed by the Generators on a monthly basis.

b) The Permittee shall monitor the hours of operation of the each Generator on a monthly basis.

5. Specific Record Keeping Requirements:

a) The permittee shall compile and maintain records of the amount of fuel consumed by the each generator on a monthly basis.

b) The Permittee shall maintain records of the hours of operation of each Generator on a monthly basis.

6. Specific Reporting Requirements:

See Section F.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 16 Six (6) Diesel Emergency Generators

Description:

15e (64)	Diesel Emergency Generator for fire pump house (500 hp)
15f (60)	Diesel Emergency Generator (300 EkW, 450 hp)
15g (61)	Diesel Emergency Generator (300 EkW, 450 hp)
15h (62)	Diesel Emergency Generator (300 EkW, 450 hp)
15i (63)	Diesel Emergency Generator (155 EkW, 230 hp)
15j (84)	Diesel Emergency Generator (400 EkW)

Constructed between 1979-2000

APPLICABLE REGULATIONS:

401 KAR 52:020, Title V permits

1. Operating Limitations:

The permittee shall limit the hours of operation of each generator to 500 hour per year.

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

a) The Permittee shall monitor the amount of fuel oil consumed by the Generators on a monthly basis.

b) The Permittee shall monitor the hours of operation of the each Generator on a monthly basis.

5. Specific Record Keeping Requirements:

a) The permittee shall compile and maintain records of the amount of fuel consumed by the each generator on a monthly basis.

b) The Permittee shall maintain records of the hours of operation of each Generator on a monthly basis.

6. Specific Reporting Requirements:

See Section F.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary. Process and emission control equipment at each insignificant activity subject to a general applicable regulation shall be inspected monthly and qualitative visible emission evaluation made. The results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause and any conservative actions taken for any abnormal visible emissions.

	Description	Generally Applicable Regulation
1.	(2) Sand silo equipped with baghouse and Raw material unloading & storage	401 KAR 61:020
2.	(03a) Sand separator DVMF equipped with baghouse	401 KAR 61:020
3.	(14) Small hood weigh scales equipped with baghouse	401 KAR 61:020
4.	(43) Maintenance paints, 208 gallons/year	401 KAR 61:020
5.	(44) Degreasing units using Safety Kleen (0.1 gph)	None
6.	(45) Paint booth, drying booth, and curing oven (0.02 gph)	401 KAR 61:020
7.	(46) Sand blaster equipped with baghouse (0.006 tph)	401 KAR 59:010
8.	(47) Sand blaster equipped with baghouse (0.002 tph)	401 KAR 59:010
9.	(48) Sand blaster equipped with baghouse (0.006 tph)	401 KAR 59:010
10.	(49) Wood cutting & shaping equipped with baghouse	401 KAR 59:010
11.	(50) Three laboratory hoods	401 KAR 59:010
12.	(52) Brick drilling and cutting equipped with baghouse (0.075 tph)	401 KAR 59:010
13.	(53) Spray coater (0.0002 tph) (Aluminum Oxide Coating) equipped with a scrubber	401 KAR 61:020
14.	(54) Natural gas fired excess air burner (2.75 mmBtu/hr)	None
15.	(57) Nine natural gas/propane forced comfort heaters (5 mmBtu/hr each)	None
16.	(55) Four fuel oil storage tanks	None
17.	(66) Bag collection system	401 KAR 59:010
18.	(56) Arsenic acid storage tank (15,200 gallons capacity)	None
19.	(82) Platinum shop Grit/Rokide room	401 KAR 61:020
20.	(80) Machine shop equipped with a baghouse	401 KAR 61:020
21.	(81) 135 Chip scoring process equipped with a baghouse	401 KAR 61:020

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Particulate, arsenic and visible emissions as measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. Performance testing for arsenic:
   a) The permittee shall conduct an emission test as described in 40 CFR 61:164(e) on each control device to demonstrate compliance with the percent reduction requirements of inorganic arsenic emissions while operating all glass melting tanks associated with each control device being tested, by the start of the fourth year of this permit for all melting tanks.

   b) The permittee shall determine the opacity and temperature value following the procedure as described in 40 CFR 61.163(c) during the emission test.

4. Performance testing for particulate matter:
   The permittee shall conduct a performance using U.S. EPA approved test method to demonstrate compliance with the particulate emission standard while operating all glass melting tanks associated with each control device being tested, by the start of the fourth year of this permit for all melting tanks.

5. Performance testing for NO_X:
   The permittee shall conduct at least one performance U.S. EPA approved test method for nitrogen oxides by the start of the fourth year of this permit for all melting tanks.

6. 401 KAR 63:020; Potentially hazardous matter or toxic substances, applicable to each affected facility, which emits or may emit potentially hazardous matter or toxic substances. The permittee proposed the usage of raw material, which can generate hydrogen bromide. The alternate operating scenarios submitted by permittee dated June 22, 2005, has been established by the Division based on information supplied with the application, during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, Condition (a) 15, shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements. Source wide hazardous air pollutants (HAP) shall not exceed 10 tons for single HAP, and 25 tons for combined HAPs per any twelve (12) consecutive months

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Compliance Demonstration Method:

The source is in compliance with 401 KAR 63:020 based on the emission rates of toxics given in the application submitted by the source. If the source alters process rates, material formulations, or any other factor that would result in an increase of toxic emissions or the addition of toxic emissions not previously evaluated by the Division, the source shall submit the appropriate application forms pursuant to 401 KAR 52:020, Section 3(1)(a), along with modeling to show that the facility will remain in compliance with 401 KAR 63:020.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit written notice upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Other deviations from permit requirements shall *be included in the semiannual report required by Section F.6* [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Frankfort Regional Office
643 Teton Trail, Suite B
Frankfort, KY 40601

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].

11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
    a. Applicable requirements that are included and specifically identified in the permit and
    b. Non-applicable requirements expressly identified in this permit.

17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements
N/A

(e) Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
   d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
   e. This requirement does not relieve the source of other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, incorporating by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

SECTION G - GENERAL PROVISIONS (CONTINUED)

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

See Section B and Section D.6

SECTION I - COMPLIANCE SCHEDULE

None